## **Cheat Sheet Companion to the NWCG video:**

How to Assess the Fire Environment to Anticipate Fire Behavior: a step-by-step process

Assessment steps	Questions to consider	Poster resources	Online resources	IRPG
hase 1. Before An Assig	nment			
Evaluate forecasts (03:01)	Has a fuels and fire behavior advisory been issued for your area? What does it say about the recent past? How will the past and forecasted weather affect the fire behavior throughout the day? Have the days been bright and sunny with above average temps and low humidity, and for how long? What are the hours with the highest temps and lowest RH's? What are the expected winds? Are conditions going to be stable or unstable? Is a storm moving in? Is expected weather a big change from yesterday? Do you know the current ERC and/or BI percentile values for the area? Do you know the adjective fire danger outlook?	Sun, Heat, Humidity & Rain Wind Speed & Direction	NWS general fire weather forecast https://www.weather.gov/ Fuels and fire behavior advisories https://www.predictiveservices.nifc.gov/fuels_f ire-danger/fuels_fire-danger.htm WildfireSAFE https://wildfiresafe.technosylva.com/	3, 4, 67
Review yesterday's activity (04:08)	What information was reported from yesterday's incidents? What has the fire activity been like so far this year and over the last few days? How effective or difficult was the suppression on a recent fire nearby, and what tactics were used? How do your current weather and fuels conditions align with past problem fires within the current Fire Danger Rating Area (FDRA)? How is this year different than last year or the year before?	Sun, Heat, Humidity & Rain (Pocket cards)	For your GACC: Predictive Services, Intelligence, Situation Report OR Large Fire Summary https://gacc.nigc/gov Natl. Fuel Moisture Database (NFMD) https://www.wfas.net/index.php/national-fuel- moisture-database-moisture-drought-103 Pocket cards https://www.nwcg.gov/committee/6mfs/nfdrs- pocketcards	
Anticipate today's problems (05:12)	According to the weather forecast, current fire danger, the hazardous fuels in the area, and past activity, what should you think about the expected fire behavior?	Fuel Characteristics	GACC 7-day significant fire potential outlooks https://fsapps.nwcg.gov/psp/npsg/forecast#/outlooks	3, 4, 5, 73

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Phase 2. Assigned and Enr	oute			•
Get on-scene weather and fire info (06:05)	Do you have a local fire weather forecast? Do you understand the timing of weather events?		Spot weather forecast request/monitoring page https://www.weather.gov/spot/ Point forecast https://digital.weather.gov/ FBFRG nwcg.gov/publications/pms437/weather/obser ving-fire-weather Nearby weather observations https://mesowest.utah.edu/	65
	What maps and imagery make sense? Can they inform you about the fuels and terrain surrounding your fire?	Fuels Characteristics Topography	Google Earth Avenza Wind Ninja What does your supervisor recommend?	3
(08:09)	As you approach the fire, what do you see? What kind of cloud formations do you see? What is the height of the smoke column? Is it vertical or leaning? Are the trees and shrubs moving with the wind? What is the color of the smoke? Is there an inversion or marine layer present?	Cloud & Plume Indicators	FBFRG nwcg.gov/publications/pms437/fire- assessment/observing-current-fire-behavior Fire Weather Cloud Chart nwcg.gov/publications/pms438.pdf FBFRG nwcg.gov/publications/pms437/observing-fire- weather Webcams alertwildfire.org	3, 4
Ask for spot forecast (08:41)	Is your forecast adequate, or do you need to request a spot weather forecast before you leave the station?		Spot weather forecast request/monitoring page https://www.weather.gov/spot/	65

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Phase 3. On-Scene Fire As	sessment			
	Initial attack: Confirm location.			3, 4, 5
	Confirm your situational awareness.			
	Is your forecast adequate or do you need an update?			
	Do those around you share your assessment?			
	Determine BIG CHANGE FACTORS.			
	How would you characterize the fuels where folks are working and where the fire could	Fuel Characteristics		3, 5, 73
ahead of the fire	move?			
(10:29)	Do the fuels stay the same or change?			
	Are the fuels in the sun and is the fire burning upslope?			
	Are you early in the burn period or are these peak conditions?			
Verify forecast and	Does the spot weather forecast match your own observations?	Sun, Heat, Humidity &		3, 4
request update	Do the temperatures, humidity, winds, and cloud cover match what you had expected	Rain		
(11:06)	in the forecast?	Wind Speed & Direction		
	Do you expect critical winds or changes in local winds to lead to big changes in fire			
	behavior?			
	What weather is expected later today and tomorrow?			
Escape and safety zone	Based on the current and anticipated fire behavior, what are your escape and safety			3, 4, 5, 73
requirements	zone requirements?			
(12:25)	Is your safety zone big enough for expected conditions?			
	Do you have a safe and effective way to get there?			
	Do you have enough time to get there?			
BIG CHANGE FACTOR	Is a pyrocumulous cloud forming that could bring wind and lightning?	Anticipate, Observe,		3, 4, 5, 73
CLUES	Is the fire getting ready to jump to a different aspect where slope and wind alignment	Report Rapid Changes in		
	is favorable for rapid rates of spead and increased fire behavior?	Fire Behavior		
	What will the next big change look like?			
	Where and how fast will it come?			
	Is it time to act, or is it time to move to safety and wait it out?			

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